

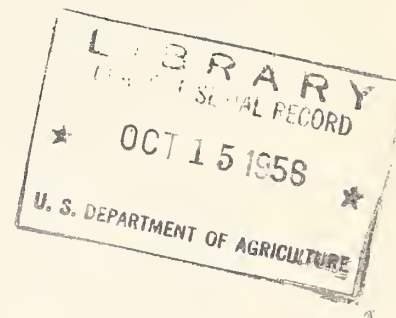
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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service  
Cotton Division  
Washington, D.C.



COTTON FIBER AND PROCESSING TEST RESULTS  
CROP OF 1958

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Yarn appearance grades continue to average below early season 1957 according to spinning test results in this report. Reports from the spinning laboratories indicate that this decrease in average yarn appearance is due primarily to increased amounts of fine leaf and seed-coat fragments as well as neps in the yarns as compared with last year. In the Southwestern and Western areas yarn grades are averaging as much as a full grade below that reported a year ago. Fine leaf and other foreign matter account for much of the decrease in yarn appearance in the western portion of the Belt. More neps account for most of the decrease in yarn appearance grades in the Southeastern area. Nep counts in the Southeastern area are averaging around 20 neps per 100 square inches of card web this year as compared with an average of around 15 neps for this area in 1957.

Contrary to the trend in yarn grades, nonlint content and picker and card waste of the samples received thus far are averaging over 0.5 percent lower than at this time last year.

Although most of the samples received thus far are finer and less mature than last year, yarn strength tests are averaging considerably higher. Average break factor for 1958 cotton is ranging from 2250 to 2350 for most cottons as compared with from 2100 to 2200 last year.

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Prepared in the Standards and Testing Branch, AMS

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 12-1/2 pounds per hour and a twist multiplier of 4.40, Crop of 1958

Variety	:	Parrott	:	Western Stormproof
State	:	Oklahoma	:	Texas
Market area	:	Temple	:	Rotan
Percentage of variety at gin	:	80	:	80
Period of harvest	:	Early	:	Early
RAW COTTON QUALITY	:		:	
Classification (official standards)	:		:	
Grade-----designation:		M		SM
Staple length-----inches:		15/16	:	15/16
Fiber length (Fibrograph):	:		:	
Upper half mean-----inches:		.94	:	.92
Uniformity-----ratio:		80	:	79
Fiber fineness and maturity:	:		:	
Micronaire-----reading <u>1</u> /:		4.5	:	4.9
Fineness (Causticaire)---ug/inch <u>2</u> /:		5.1	:	5.3
Maturity ( " )-----index:		75	:	79
Fiber tensile strength (Pressley):	:		:	
Zero gauge-----1,000 p.s.i.:		81	:	88
" " -----grams per tex <u>3</u> /:		40.1	:	43.6
1/8" " ----- " " " :		21.4	:	20.7
Nonlint content: <u>4</u> /	:		:	
Visible waste-----percent:		2.0	:	0.7
Invisible waste----- "	:	1.2	:	1.0
Total nonlint content----- "	:	3.2	:	1.7
Color of raw cotton: <u>5</u> /	:		:	
Reflectance-----Rd:		73.5	:	75.4
Yellowness-----+b:		9.6	:	9.5
Sugar content-----percent:		0.2	:	0.2
Acid-alkaline value-----pH units <u>6</u> /:		6.8	:	7.3
PROCESSING RESULTS	:		:	
Manufacturing waste:	:		:	
Picker and card-----percent:		8.7	:	5.9
Neps-----per 100 sq. in. of card web:		11	:	10
Yarn skein strength:	:		:	
8s (73.8 tex)-----pounds:		338	:	339
22s (26.8 " )----- "	:	105	:	108
Average break factor----- <u>7</u> /:		2507	:	2544
Yarn appearance:	:		:	
8s (73.8 tex)-----grade:		B	:	B
22s (26.8 " )----- "	:	C+	:	B
Average yarn appearance----index <u>8</u> /:		105	:	110

For footnotes see page 18.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958

Variety	:	Arizona-44	:	Coker 100 W				
State	:	Arizona	:	Alabama				
Market area	:	Parker	:	Peoria	:	Atmore	:	Ft. Deposit
Percentage of variety at gin	:	98	:	90	:	100	:	100
Period of harvest	:	Early	:	Early	:	Late	:	Midseason
RAW COTTON QUALITY								
Classification (official standards):	:	:	:	:	:	:	:	:
Grade-----designation:	:	SM	:	SM	:	SIM	:	M
Staple length-----inches:	:	1-1/16	:	1-3/32	:	1-1/16	:	1-1/16
Fiber length (Fibrograph):	:	:	:	:	:	:	:	:
Upper half mean-----inches:	:	1.06	:	1.10	:	1.04	:	1.04
Uniformity-----ratio:	:	79	:	81	:	82	:	81
Fiber fineness and maturity:	:	:	:	:	:	:	:	:
Micronaire-----reading 1/:	:	4.4	:	4.6	:	4.0	:	4.4
Fineness (Causticaire)---ug/inch 2/:	:	4.4	:	4.6	:	4.0	:	4.4
Maturity ( " )-----index:	:	78	:	80	:	77	:	79
Fiber tensile strength (Pressley):	:	:	:	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	90	:	92	:	75	:	82
" " -----grams per tex 3/:	:	44.6	:	45.5	:	37.2	:	40.6
1/8" " ----- " " " 4/:	:	21.7	:	25.5	:	20.8	:	21.1
Nonlint content: 4/	:	:	:	:	:	:	:	:
Visible waste-----percent:	:	1.5	:	1.4	:	2.6	:	2.5
Invisible waste----- " " 5/:	:	1.0	:	0.6	:	1.0	:	1.0
Total nonlint content----- " " 6/:	:	2.5	:	2.0	:	3.6	:	3.5
Color of raw cotton: 5/	:	:	:	:	:	:	:	:
Reflectance-----Rd:	:	74.9	:	75.7	:	70.0	:	76.5
Yellowness-----+b:	:	9.4	:	9.1	:	8.9	:	8.8
Sugar content-----percent:	:	0.2	:	0.2	:	0.0	:	0.2
Acid-alkaline value-----pH units 6/:	:	7.2	:	7.6	:	9.2	:	7.2
PROCESSING RESULTS								
Manufacturing waste:	:	:	:	:	:	:	:	:
Picker and card-----percent:	:	7.9	:	8.3	:	9.0	:	9.0
Neps-----per 100 sq. in. of card web:	:	15	:	13	:	26	:	16
Yarn skein strength:	:	:	:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	119	:	129	:	112	:	113
50s (11.8 " )----- " " 7/:	:	42	:	46	:	39	:	40
Average break factor-----7/:	:	2359	:	2569	:	2207	:	2243
Yarn appearance:	:	:	:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C	:	C+	:	C+	:	B
50s (11.8 " )----- " " 8/:	:	D	:	D+	:	C+	:	C
Average yarn appearance-----index 8/:	:	80	:	90	:	100	:	100

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker	100 W
State	:	Alabama :	Georgia
Market area	:	Headland:	Arlington: Bostwick:Cartersville
Percentage of variety at gin	:	99 :	86 : 95 : 75
Period of harvest	:	Late :	Midseason:Midseason: Early
RAW COTTON QUALITY	:	:	:
Classification (official standards)	:	:	:
Grade-----designation:	M :	M :	M : M
Staple length-----inches:	1-1/32:	1-1/32:	1-1/32: 1-1/16
Fiber length (Fibrograph):	:	:	:
Upper half mean-----inches:	1.03 :	1.04 :	1.02 : 1.09
Uniformity-----ratio:	78 :	84 :	82 : 83
Fiber fineness and maturity:	:	:	:
Micronaire-----reading <u>1</u> /:	3.9 :	4.0 :	4.5 : 4.4
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.0 :	4.0 :	4.3 : 4.4
Maturity ( " )-----index:	76 :	78 :	80 : 78
Fiber tensile strength (Pressley):	:	:	:
Zero Gauge-----1,000 p.s.i.:	74 :	72 :	79 : 78
" " -----grams per tex <u>3</u> /:	36.7 :	35.7 :	39.3 : 38.4
1/8" " -----" " " " " :	20.9 :	19.8 :	21.3 : 22.0
Nonlint content: <u>4</u> /	:	:	:
Visible waste-----percent:	1.2 :	2.0 :	1.7 : 1.6
Invisible waste-----"	0.5 :	0.7 :	0.4 : 0.4
Total nonlint content-----"	1.7 :	2.7 :	2.1 : 2.0
Color of raw cotton: <u>5</u> /	:	:	:
Reflectance-----Rd:	75.0 :	74.5 :	75.8 : 76.0
Yellowness-----+b:	8.9 :	8.8 :	9.0 : 8.7
Sugar content-----percent:	0.2 :	0.2 :	0.3 : 0.3
Acid-alkaline value-----pH units <u>6</u> /:	8.0 :	8.1 :	6.8 : 6.8
PROCESSING RESULTS	:	:	:
Manufacturing waste:	:	:	:
Picker and card-----percent:	7.1 :	7.8 :	8.0 : 7.6
Neps-----per 100 sq. in. of card web:	19 :	12 :	14 : 30
Yarn skein strength:	:	:	:
22s (26.8 tex)-----pounds:	108 :	108 :	123 : 123
50s (11.8 " )-----"	37 :	38 :	42 : 44
Average break factor----- <u>7</u> / <u>2113</u>	: 2113 :	2138 :	2403 : 2453
Yarn appearance:	:	:	:
22s (26.8 tex)-----grade:	C+ :	B :	B : C+
50s (11.8 " )-----"	C+ :	C+ :	C+ : C
Average yarn appearance----index <u>8</u> /:	100 :	105 :	105 : 95

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker 100 W			
State	:	Georgia	:	North Carolina	
Market area	:	Cartersville	:	Dunn	:Laurinburg:Lumberton
Percentage of variety at gin	:	75	:	95	: 92 : 100
Period of harvest	:	Midseason	:	Midseason	:Midseason :Midseason
RAW COTTON QUALITY	:	:	:	:	:
Classification (official standards)	:	:	:	:	:
Grade-----designation:	:	M	:	M	: M : M
Staple length-----inches:	:	1-1/16	:	1-1/32	: 1-1/32 : 1-1/32
Fiber length (Fibrogograph):	:	:	:	:	:
Upper half mean-----inches:	:	1.06	:	1.01	: 1.02 : 1.00
Uniformity-----ratio:	:	84	:	78	: 82 : 78
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading <u>1/</u> :	:	4.2	:	4.5	: 4.0 : 4.2
Fineness (Causticaire)---ug/inch <u>2/</u> :	:	4.3	:	4.5	: 4.0 : 4.2
Maturity ( " )-----index:	:	78	:	79	: 76 : 79
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	77	:	84	: 79 : 80
" " -----grams per tex <u>3/</u> :	:	38.0	:	41.7	: 38.9 : 39.7
1/8" " ----- " " " " :	:	21.0	:	21.8	: 21.6 : 20.6
Nonlint content: <u>4/</u>	:	:	:	:	:
Visible waste-----percent:	:	1.8	:	1.6	: 2.0 : 2.2
Invisible waste----- " :	:	0.5	:	0.9	: 0.7 : 0.9
Total nonlint content----- " :	:	2.3	:	2.5	: 2.7 : 3.1
Color of raw cotton: <u>5/</u>	:	:	:	:	:
Reflectance-----Rd:	:	73.4	:	77.3	: 76.6 : 75.3
Yellowness-----+b:	:	9.3	:	8.5	: 8.5 : 8.5
Sugar content-----percent:	:	0.2	:	0.2	: 0.2 : 0.1
Acid-alkaline value-----pH units <u>6/</u> :	:	8.3	:	7.3	: 7.6 : 8.2
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	:	7.6	:	7.7	: 8.8 : 8.0
Neps-----per 100 sq. in. of card web:	:	22	:	25	: 21 : 28
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	118	:	116	: 116 : 109
50s (11.8 " )----- " :	:	42	:	40	: 41 : 37
Average break factor----- <u>7/</u> :	:	2348	:	2276	: 2301 : 2124
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C+	:	C+	: C+ : C+
50s (11.8 " )----- " :	:	C	:	C+	: C : C
Average yarn appearance----index <u>8/</u> :	:	95	:	100	: 95 : 95

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For footnotes see page 18.



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker 100 W			
State	:	North Carolina			
Market area	:	Monroe	:Smithfield:	Wilson	: Windsor
Percentage of variety at gin	:	95	:	95	: 99 : 100
Period of harvest	:	Early	:Midseason	:Midseason	:Midseason
RAW COTTON QUALITY	:	:	:	:	:
Classification (official standards)	:	:	:	:	:
Grade-----designations:	M	:	M	:	M
Staple length-----inches:	1-1/16:	:	1-1/32:	:	1-1/32
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	1.07	:	1.00	:	1.05 : 1.03
Uniformity-----ratio:	84	:	80	:	82 : 80
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading <u>1</u> /:	4.3	:	4.5	:	4.2 : 4.4
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.1	:	4.6	:	4.3 : 4.4
Maturity ( " )-----index:	80	:	79	:	78 : 79
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	83	:	83	:	80 : 81
" " -----grams per tex <u>3</u> /:	41.3	:	41.2	:	39.8 : 39.9
1/8" " ----- " " " " " :	22.2	:	21.8	:	21.6 : 21.1
Nonlint content: <u>4</u> /	:	:	:	:	:
Visible waste-----percent:	2.0	:	1.6	:	1.0 : 1.3
Invisible waste----- " :	0.6	:	0.8	:	0.8 : 0.8
Total nonlint content----- " :	2.6	:	2.4	:	1.8 : 2.1
Color of raw cotton: <u>5</u> /	:	:	:	:	:
Reflectance-----Rd:	76.1	:	77.5	:	75.2 : 74.6
Yellowness-----+b:	8.9	:	8.4	:	9.1 : 8.5
Sugar content-----percent:	0.2	:	0.1	:	0.2 : 0.2
Acid-alkaline value-----pH units <u>6</u> /:	7.2	:	7.3	:	7.5 : 7.4
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	8.6	:	6.8	:	7.4 : 6.3
Neps-----per 100 sq. in. of card web:	16	:	21	:	21 : 16
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	126	:	118	:	121 : 116
50s (11.8 " )----- " :	44	:	40	:	41 : 41
Average break factor----- <u>7</u> /:	2486	:	2298	:	2356 : 2301
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	B	:	C+	:	C+ : B
50s (11.8 " )----- " :	C+	:	C+	:	C+ : C+
Average yarn appearance----index <u>8</u> /:	105	:	100	:	100 : 105

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	Coker 100 W			
State	South Carolina			
Market area	Aiken		Chester	
Percentage of variety at gin	85		100	
Period of harvest	Early	Midseason	Early	Midseason
<b>RAW COTTON QUALITY</b>				
Classification (official standards)				
Grade-----designation:	M	M	M	M
Staple length-----inches:	1-1/16:	1	1-1/32:	1-1/16
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.03	.97	1.04	1.06
Uniformity-----ratio:	78	79	81	81
Fiber fineness and maturity:				
Micronaire-----reading <u>1</u> /:	3.6	4.0	4.4	4.1
Fineness (Causticaire)---ug/inch <u>2</u> /:	3.7	4.0	4.3	4.2
Maturity ( " )-----index:	74	78	80	77
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	81	91	84	83
" " -----grams per tex <u>3</u> /:	40.1	44.8	41.7	41.3
1/8" " ----- " " " <u>3</u> /:	21.6	22.4	21.6	22.8
Nonlint content: <u>4</u> /				
Visible waste-----percent:	1.1	1.2	1.6	1.9
Invisible waste----- " :	0.9	0.6	0.4	0.4
Total nonlint content----- " :	2.0	1.8	2.0	2.3
Color of raw cotton: <u>5</u> /				
Reflectance-----Rd:	74.0	76.5	77.3	76.8
Yellowness-----+b:	9.3	9.2	8.9	8.5
Sugar content-----percent:	0.2	0.2	0.2	0.2
Acid-alkaline value-----pH units <u>6</u> /:	8.2	7.6	7.5	7.5
<b>PROCESSING RESULTS</b>				
Manufacturing waste:				
Picker and card-----percent:	7.0	7.6	6.8	7.2
Neps-----per 100 sq. in. of card web:	25	29	19	20
Yarn skein strength:				
22s (26.8 tex)-----pounds:	125	119	123	126
50s (11.8 " )----- " :	44	41	43	44
Average break factor----- <u>7</u> /:	2475	2334	2428	2486
Yarn appearance:				
22s (26.8 tex)-----grade:	C+	B	B	B
50s (11.8 " )----- " :	C	C+	C+	C+
Average yarn appearance----index <u>8</u> /:	95	105	105	105

Continued on page 8

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	Coker 100 W			
State	South Carolina			
Market area	Garnett	Lamar		
Percentage of variety at gin	95	100		
Period of harvest	Early	Midseason	Early	Midseason
RAW COTTON QUALITY				
Classification (official standards)				
Grade-----designation:	M	M	M	M
Staple length-----inches:	1-1/16	1	1-1/32	1-1/32
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.04	1.02	1.01	1.00
Uniformity-----ratio:	82	79	81	81
Fiber fineness and maturity:				
Micronaire-----reading <u>1</u> /:	4.0	3.8	4.1	4.1
Fineness (Causticaire)--ug/inch <u>2</u> /:	4.0	3.9	4.1	4.2
Maturity ( " )-----index:	77	75	78	77
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.:	79	81	76	77
" " -----grams per tex <u>3</u> /:	38.9	40.2	37.8	38.3
1/8" " ----- " " " :	19.8	20.7	20.4	20.5
Nonlint content: <u>4</u> /				
Visible waste-----percent:	1.5	2.3	1.3	1.4
Invisible waste----- " :	0.5	1.0	0.5	0.8
Total nonlint content----- " :	2.0	3.3	1.8	2.2
Color of raw cotton: <u>5</u> /				
Reflectance-----Rd:	73.5	74.5	75.7	74.5
Yellowness-----+b:	9.2	8.9	8.4	9.0
Sugar content-----percent:	0.2	0.2	0.2	0.2
Acid-alkaline value-----pH units <u>6</u> /:	8.6	7.3	7.9	8.1
PROCESSING RESULTS				
Manufacturing waste:				
Picker and card-----percent:	8.3	8.1	7.6	7.4
Neps-----per 100 sq. in. of card web:	19	26	25	24
Yarn skein strength:				
22s (26.8 tex)-----pounds:	117	118	111	111
50s (11.8 " )----- " :	41	40	38	38
Average break factor----- <u>7</u> /:	2312	2298	2171	2171
Yarn appearance:				
22s (26.8 tex)-----grade:	C+	C+	C+	C+
50s (11.8 " )----- " :	C+	C+	C	C+
Average yarn appearance---index <u>8</u> /:	100	100	95	100

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For footnotes see page 18.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	Coker 100 W			
State	South Carolina			
Market area	Newberry	Pendleton	St. Matthews	
Percentage of variety at gin	96	95	80	
Period of harvest	Early	Early	Early	Midseason
<b>RAW COTTON QUALITY</b>				
Classification (official standards)				
Grade-----designation:	M	M	M	M
Staple length-----inches:	1-1/16	1-1/32	1-1/16	1-1/32
Fiber length (Fibrograph):				
Upper half mean-----inches:	1.07	1.03	1.03	1.00
Uniformity-----ratio:	81	83	81	82
Fiber fineness and maturity:				
Micronaire-----reading 1/:	4.2	4.9	4.0	4.0
Fineness (Causticaire)---ug/inch 2/:	4.2	4.9	4.1	4.0
Maturity ( " )-----index:	77	81	77	77
Fiber tensile strength (Pressley):				
Zero gauge-----1,000 p.s.i.	84	82	81	84
" " -----grams per tex 3/:	41.7	40.7	40.0	41.5
1/8" " ----- " " " "	22.3	21.6	20.9	22.1
Nonlint content: 4/				
Visible waste-----percent:	1.7	3.8	0.9	0.8
Invisible waste----- " :	0.6	0.7	0.8	0.7
Total nonlint content----- " :	2.3	4.5	1.7	1.5
Color of raw cotton: 5/				
Reflectance-----Rd:	78.3	76.5	73.6	74.6
Yellowness-----+b:	8.4	8.8	9.5	9.5
Sugar content-----percent:	0.3	0.4	0.0	0.0
Acid-alkaline value-----pH units 6/:	7.4	6.9	9.0	8.6
<b>PROCESSING RESULTS</b>				
Manufacturing waste:				
Picker and card-----percent:	8.2	7.8	6.4	7.2
Neps-----per 100 sq. in. of card web:	16	9	23	27
Yarn skein strength:				
22s (26.8 tex)-----pounds:	127	121	119	116
50s (11.8 " )----- " :	45	41	42	40
Average break factor-----7/:	2522	2356	2359	2276
Yarn appearance:				
22s (26.8 tex)-----grade:	B	B	B	C+
50s (11.8 " )----- " :	C+	B	C+	C+
Average yarn appearance----index 8/:	105	110	105	100

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For footnotes see page 18.



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker 100 W	:	Deltapine 15	
State	:	South Carolina	:	Mississippi	
Market area	:	Summerton	:	Calhoun City	
Percentage of variety at gin	:	90	:	90	
Period of harvest	:	Early	:	Midseason	
	:		:	Early	
RAW COTTON QUALITY	:		:		
Classification (official standards)	:		:		
Grade-----designation:	M	:	SIM	:	M
Staple length-----inches:	1-1/16	:	1-1/32	:	1-3/32
Fiber length (Fibrograph):		:		:	
Upper half mean-----inches:	1.05	:	1.04	:	1.11
Uniformity-----ratio:	82	:	82	:	81
Fiber fineness and maturity:		:		:	
Micronaire-----reading 1/:	4.2	:	4.0	:	4.6
Fineness (Causticaire)---ug/inch 2/:	4.2	:	4.1	:	4.9
Maturity ( " )-----index:	79	:	77	:	78
Fiber tensile strength (Pressley):		:		:	
Zero gauge-----1,000 p.s.i.:	77	:	76	:	81
" " -----grams per tex 3/:	38.2	:	37.6	:	40.1
1/8" " ----- " " " " :	20.9	:	20.9	:	21.7
Nonlint content: 4/		:		:	
Visible waste-----percent:	1.2	:	2.1	:	1.3
Invisible waste----- " :	0.5	:	0.7	:	0.6
Total nonlint content----- " :	1.7	:	2.8	:	1.9
Color of raw cotton: 5/		:		:	
Reflectance-----Rd:	75.0	:	72.0	:	75.0
Yellowness-----+b:	9.0	:	8.9	:	9.2
	:	:	:	:	
Sugar content-----percent:	0.1	:	0.1	:	0.2
Acid-alkaline value-----pH units 6/:	9.1	:	8.0	:	8.3
PROCESSING RESULTS	:		:		
Manufacturing waste:	:		:		
Picker and card-----percent:	7.5	:	8.2	:	6.6
Neps-----per 100 sq. in. of card web:	23	:	20	:	8
Yarn skein strength:		:		:	
22s (26.8 tex)-----pounds :	115	:	103	:	120
50s (11.8 " )----- " :	40	:	36	:	43
Average break factor-----7/:	2265	:	2033	:	2395
Yarn appearance:	:	:	:	:	
22s (26.8 tex)-----grade:	B	:	C+	:	B
50s (11.8 " )----- " :	C+	:	C	:	C+
Average yarn appearance----index 8/:	105	:	95	:	105

Continued on page 11

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Deltapine 15			
State	:	Mississippi			
Market area	:	Edwards	:	Mt. Olive : Prentiss	
Percentage of variety at gin	:	90	:	75 : 90	
Period of harvest	:	Early	:	Early : Midseason	
RAW COTTON QUALITY					
Classification (official standards)	:	:	:	:	
Grade-----designation:	M	:	M	:	SM
Staple length-----inches:	1-1/32	:	1-1/8	:	1-1/16
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	1.02	:	1.10	:	1.06
Uniformity-----ratio:	80	:	81	:	82
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading 1/:	5.0	:	4.2	:	4.6
Fineness (Causticaire)---ug/inch 2/:	5.1	:	4.5	:	4.8
Maturity ( " )-----index:	81	:	76	:	78
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	81	:	72	:	77
" " -----grams per tex 3/:	40.1	:	35.6	:	38.1
1/8" " ----- " " " " :	21.3	:	21.7	:	20.7
Nonlint content: 4/	:	:	:	:	:
Visible waste-----percent:	1.3	:	1.3	:	0.6
Invisible waste----- " :	0.9	:	1.3	:	1.1
Total nonlint content----- " :	2.2	:	2.6	:	1.7
Color of raw cotton: 5/	:	:	:	:	:
Reflectance-----Rd:	72.0	:	76.2	:	76.5
Yellowness-----+b:	9.9	:	8.3	:	9.5
Sugar content-----percent:	0.0	:	0.3	:	0.3
Acid-alkaline value-----pH units 6/:	8.9	:	7.0	:	7.4
PROCESSING RESULTS					
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	7.1	:	9.1	:	6.0
Neps-----per 100 sq. in. of card web:	7	:	11	:	8
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	116	:	120	:	117
50s (11.8 " )----- " :	39	:	42	:	39
Average break factor-----7/:	2251	:	2370	:	2262
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	B	:	C+	:	C+
50s (11.8 " )----- " :	C+	:	C	:	C+
Average yarn appearance----index 8/:	105	:	95	:	100

Continued on page 12



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Deltapine 15		
State	:	Oklahoma	:	Tennessee
Market area	:	Webber Falls	:	Brownsville : Dyersburg
Percentage of variety at gin	:	95	:	96 : 95
Period of harvest	:	Early	:	Early : Early
RAW COTTON QUALITY				
Classification (official standards)	:	:	:	:
Grade-----designation:	:	SIM	:	M : M
Staple length-----inches:	:	1-1/8	:	1-1/16 : 1-3/32
Fiber length (Fibrograph):	:	:	:	:
Upper half mean-----inches:	:	1.15	:	1.04 : 1.12
Uniformity-----ratio:	:	83	:	82 : 79
Fiber fineness and maturity:	:	:	:	:
Micronaire-----reading <u>1</u> /:	:	4.6	:	4.8 : 4.2
Fineness (Causticaire)---ug/inch <u>2</u> /:	:	4.7	:	5.1 : 4.7
Maturity ( " )-----index:	:	79	:	79 : 76
Fiber tensile strength (Pressley):	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	80	:	76 : 78
" " -----grams per tex <u>3</u> /:	:	39.6	:	37.6 : 38.6
1/8" " ----- " " " :	:	23.3	:	21.5 : 23.5
Nonlint content: <u>4</u> /	:	:	:	:
Visible waste-----percent:	:	2.7	:	1.6 : 1.3
Invisible waste----- " :	:	0.9	:	0.9 : 0.8
Total nonlint content----- " :	:	3.6	:	2.5 : 2.1
Color of raw cotton: <u>5</u> /	:	:	:	:
Reflectance-----Rd:	:	73.9	:	75.5 : 77.3
Yellowness-----+b:	:	9.5	:	8.9 : 8.7
Sugar content-----percent:	:	0.1	:	0.2 : 0.2
Acid-alkaline value-----pH units <u>6</u> /:	:	7.7	:	7.4 : 7.2
PROCESSING RESULTS				
Manufacturing waste:	:	:	:	:
Picker and card-----percent:	:	8.4	:	7.1 : 7.3
Neps-----per 100 sq. in. of card web:	:	7	:	7 : 18
Yarn skein strength:	:	:	:	:
22s (26.8 tex)-----pounds:	:	128	:	118 : 130
50s (11.8 " )----- " :	:	45	:	39 : 44
Average break factor----- <u>7</u> /:	:	2533	:	2273 : 2530
Yarn appearance:	:	:	:	:
22s (26.8 tex)-----grade:	:	B	:	B : C+
50s (11.8 " )----- " :	:	C+	:	C+ : D+
Average yarn appearance----index <u>8</u> /:	:	105	:	105 : 90

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Deltapine 15	:	Deltapine TPSA
State	:	Tennessee	:	Texas
Market area	:	Jackson	:	Sugarland
Percentage of variety at gin	:	90	:	98
Period of harvest	:	Early	:	Late
	:		:	Early
RAW COTTON QUALITY	:		:	
Classification (official standards)	:		:	
Grade-----designation:	:	M	:	M+
Staple length-----inches:	:	1-1/32	:	1-1/32
Fiber length (Fibrograph):	:		:	
Upper half mean-----inches:	:	1.00	:	1.02
Uniformity-----ratio:	:	81	:	78
Fiber fineness and maturity:	:		:	
Micronaire-----reading 1/:	:	4.6	:	4.6
Fineness (Causticaire)---ug/inch 2/:	:	4.7	:	4.7
Maturity ( " )-----index:	:	79	:	80
Fiber tensile strength (Pressley):	:		:	
Zero gauge-----1,000 p.s.i.:	:	79	:	84
" " -----grams per tex 3/:	:	39.1	:	41.6
1/8" " ----- " " " " 4/:	:	21.3	:	21.1
Nonlint content: 4/	:		:	
Visible waste-----percent:	:	1.7	:	1.3
Invisible waste----- " " 5/:	:	1.1	:	1.2
Total nonlint content----- " " 6/:	:	2.8	:	2.5
Color of raw cotton: 5/	:		:	
Reflectance-----Rd:	:	75.3	:	74.3
Yellowness-----+b:	:	9.4	:	8.9
Sugar content-----percent:	:	0.2	:	0.0
Acid-alkaline value-----pH units 6/:	:	7.4	:	8.4
PROCESSING RESULTS	:		:	
Manufacturing waste:	:		:	
Picker and card-----percent:	:	7.1	:	6.0
Neps-----per 100 sq. in. of card web:	:	14	:	15
Yarn skein strength:	:		:	
22s (26.8 tex)-----pounds:	:	112	:	117
50s (11.8 " )----- " " 7/:	:	38	:	39
Average break factor-----7/:	:	2182	:	2262
Yarn appearance:	:		:	
22s (26.8 tex)-----grade:	:	B	:	C+
50s (11.8 " )----- " " 8/:	:	C+	:	C
Average yarn appearance-----index 8/:	:	105	:	95

Continued on page 14

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Empire			
State	:	Georgia			
Market area	:	Haralson	:	Soperton	
Percentage of variety at gin	:	100	:	75	
Period of harvest	:	Early	:	Midseason	
	:		:	Midseason	
RAW COTTON QUALITY					
Classification (official standards)	:		:		
Grade-----designation:	M	:	M	:	M
Staple length-----inches:	1-1/16	:	1-1/16	:	1-1/32
Fiber length (Fibrograph):		:		:	
Upper half mean-----inches:	1.05	:	1.06	:	1.00
Uniformity-----ratio:	83	:	82	:	79
Fiber fineness and maturity:		:		:	
Micronaire-----reading 1/:	4.0	:	3.7	:	3.8
Fineness (Causticaire)---ug/inch 2/:	4.1	:	4.0	:	3.8
Maturity ( " )-----index:	77	:	73	:	76
Fiber tensile strength (Pressley):		:		:	
Zero gauge-----1,000 p.s.i.:	83	:	80	:	81
" " -----grams per tex 3/:	41.0	:	39.8	:	40.0
1/8" " ----- " " " 4/:	21.2	:	23.1	:	21.1
Nonlint content: 4/		:		:	
Visible waste-----percent:	1.6	:	1.6	:	1.1
Invisible waste----- " :	0.5	:	0.7	:	0.7
Total nonlint content----- " :	2.1	:	2.3	:	1.8
Color of raw cotton: 5/		:		:	
Reflectance-----Rd:	74.4	:	77.4	:	77.0
Yellowness-----+b:	9.1	:	8.9	:	8.3
		:		:	
Sugar content-----percent:	0.4	:	0.5	:	0.2
Acid-alkaline value-----pH units 6/:	6.7	:	6.9	:	7.4
PROCESSING RESULTS					
Manufacturing waste:		:		:	
Picker and card-----percent:	7.9	:	7.8	:	7.3
Neps-----per 100 sq. in. of card web:	26	:	24	:	38
Yarn skein strength:		:		:	
22s (26.8 tex)-----pounds:	123	:	123	:	116
60s (11.8 " )----- " :	44	:	44	:	40
Average break factor-----7/:	2453	:	2453	:	2276
Yarn appearance:		:		:	
22s (26.8 tex)-----grade:	B	:	C+	:	C+
50s (11.8 " )----- " :	C	:	C	:	C
Average yarn appearance----index 8/:	100	:	95	:	95

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	Lankart	Northern Star
State	Oklahoma	
Market area	Hinton	Snyder Altus
Percentage of variety at gin	95	85 60
Period of harvest	Early	Early Early
<b>RAW COTTON QUALITY</b>		
Classification (official standards)		
Grade-----designation:	SIM	M Mltsp
Staple length-----inches:	1-1/32	31/32 1
Fiber length (Fibrograph):		
Upper half mean-----inches:	1.05	.95 .98
Uniformity-----ratio:	76	79 79
Fiber fineness and maturity:		
Micronaire-----reading 1/:	4.1	4.0 4.5
Fineness (Causticaire)---ug/inch 2/:	4.3	4.4 4.8
Maturity ( " )-----index:	76	75 78
Fiber tensile strength (Pressley):		
Zero gauge-----1,000 p.s.i.:	76	85 79
" " -----grams per tex 3/:	37.6	42.1 39.1
1/8" " ----- " " " " " :	21.5	21.1 20.5
Nonlint content: 4/		
Visible waste-----percent:	2.8	2.1 1.9
Invisible waste----- "	0.9	1.3 1.4
Total nonlint content----- "	3.7	3.4 3.3
Color of raw cotton: 5/		
Reflectance-----Rd:	72.5	74.5 73.3
Yellowness-----+b:	9.1	9.3 9.1
Sugar content-----percent:	0.2	0.2 0.2
Acid-alkaline value-----pH units 6/:	7.7	6.9 7.4
<b>PROCESSING RESULTS</b>		
Manufacturing waste:		
Picker and card-----percent:	8.5	6.8 7.9
Neps-----per 100 sq. in. of card web:	16	18 11
Yarn skein strength:		
22s (26.8 tex)-----pounds:	113	114 112
50s (11.8 " )----- "	38	38 38
Average break factor-----7/:	2193	2204 2182
Yarn appearance:		
22s (26.8 tex)-----grade:	C	C+ C+
50s (11.8 " )----- "	D+	C C+
Average yarn appearance----index 8/:	85	95 100

Continued on page 16

For footnotes see page 18.



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Plains	:		
State	:	Alabama	:		
Market area	:	Burkville	:	Centre : Florala	
Percentage of variety at gin	:	100	:	100 : 80	
Period of harvest	:	Midseason	:	Early : Late	
RAW COTTON QUALITY	:	:	:	:	
Classification (official standards):	:	:	:	:	
Grade-----designation:	SIMltsp	:	SM	:	Mltsp
Staple length-----inches:	1-1/16	:	1-1/32	:	1-1/32
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	1.05	:	1.01	:	1.01
Uniformity-----ratio:	80	:	81	:	79
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading <u>1</u> /:	4.4	:	4.3	:	4.0
Fineness (Causticaire)---ug/inch <u>2</u> /:	4.5	:	4.1	:	4.0
Maturity ( " )-----index:	79	:	80	:	77
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	77	:	80	:	74
" " -----grams per tex <u>3</u> /:	38.2	:	39.6	:	36.8
1/8" " ----- " " " " " :	20.3	:	21.1	:	20.0
Nonlint content: <u>4</u> /	:	:	:	:	:
Visible waste-----percent:	2.3	:	1.0	:	2.5
Invisible waste----- " :	1.2	:	0.5	:	0.9
Total nonlint content----- " :	3.5	:	1.5	:	3.4
Color of raw cotton: <u>5</u> /	:	:	:	:	:
Reflectance-----Rd:	76.0	:	77.5	:	74.5
Yellowness-----+b:	8.9	:	8.7	:	9.3
Sugar content-----percent:	0.2	:	0.3	:	0.2
Acid-alkaline value-----pH units <u>6</u> /:	7.7	:	6.8	:	7.6
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	9.0	:	7.8	:	8.5
Neps-----per 100 sq. in. of card web:	16	:	19	:	22
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	109	:	116	:	103
50s (11.8 " )----- " :	38	:	40	:	35
Average break factor----- <u>7</u> /:	2149	:	2276	:	2008
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	B	:	B	:	C+
50s (11.8 " )----- " :	C	:	C+	:	C
Average yarn appearance----index <u>8</u> /:	100	:	105	:	95

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 6-1/2 pounds per hour and a twist multiplier of 3.80, Crop of 1958

Variety	Acala 1517C	Delfos 9169
State	Arizona	Missouri
Market area	Safford	Hornersville
Percentage of variety at gin	80	90
Period of harvest	Early	Early
RAW COTTON QUALITY		
Classification (official standards):		
Grade-----designation:	SM	SIM
Staple length-----inches:	1-5/32	1-1/8
Fiber length (Fibrograph):		
Upper half mean-----inches:	1.14	1.14
Uniformity-----ratio:	82	77
Fiber fineness and maturity:		
Micronaire-----reading 1/:	4.0	3.8
Fineness (Causticaire)---ug/inch 2/:	4.0	3.9
Maturity ( " )-----index:	77	75
Fiber tensile strength (Pressley):		
Zero gauge-----1,000 p.s.i.:	93	74
" " -----grams per tex 3/:	46.1	36.8
1/8" " ----- " " " " 4/:	26.3	20.2
Nonlint content: 4/		
Visible waste-----percent:	1.1	2.9
Invisible waste----- " :	1.1	1.0
Total nonlint content----- " :	2.2	3.9
Color of raw cotton: 5/		
Reflectance-----Rd:	78.3	73.5
Yellowness-----+b:	8.4	8.9
Sugar content-----percent:	0.3	0.0
Acid-alkaline value-----pH units 6/:	6.8	9.4
PROCESSING RESULTS		
Manufacturing waste:		
Picker and card-----percent:	8.1	11.0
Comber----- " :	13.8	14.0
Neps-----per 100 sq. in. of card web:	21	22
Yarn skein strength:		
22s (26.8 tex)-----pounds:	143 ( 156)	111 ( 123)
50s (11.8 " )----- " :	50 ( 56)	39 ( 43)
Average break factor-----7/:	2823 (3116)	2196 (2428)
Yarn appearance:		
22s (26.8 tex)-----grade:	C (C+)	C+ (C+)
50s (11.8 " )----- " :	C (C+)	D+ (C)
Average yarn appearance----index 8/:	90 (100)	90 (95)



FOOTNOTES

- 1/ Fiber fineness and maturity in combination as measured on untreated samples using the curvilinear scale for upland cotton.
- 2/ Fineness and maturity as determined by the Causticaire method using the Micronaire instrument.
- 3/ Tex is the universal unit for designating linear density of textile materials as adopted by the International Standards Organization (ISO). A tex unit equals the weight in grams of 1,000 meters of the material.
- 4/ As determined by means of the Shirley Analyzer.
- 5/ Determined by the Nickerson-Hunter Colorimeter on raw stock.  $R_d$  values indicate percent reflectance from 0 to 100 and +b values indicate degree of yellowness.
- 6/ Values below 7.0 indicate acidity. Values above 7.0 indicate alkalinity which when associated with abnormally low sugar content may indicate fiber degradation due to weathering or from the action of micro-organisms.
- 7/ Based on yarn skein strength (number x strength) of the two yarn numbers spun.
- 8/ Based on two numbers spun. Index of average quality equals 100.

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